Completed Pollution Prevention Project Case Study

United States Department of Energy
Office of Environmental Management
Fact Sheet

Aerosol Cans from RCAs Processed as Recycled Metal

Los Alamos National Laboratory

Original Problem

Aerosol cans that came from Radiological Control Areas (RCAs) had no waste disposal option in the past. The potential external contamination on the can bodies made it impossible for any facility in the country to accept them for treatment.

The Project Solution

An Aerosolv® can recycling system was installed. The system consists of a fairly small device that screws into the 2" bung on a 30-gallon or 55-gallon drum. A non-sparking tip punctures the can, and the liquid drains into the drum. The volatile organic carbons in the propellants are captured by the coalescing cartridge. Since only the exteriors of the cans are contaminated, the liquid in the drum can be treated as normal hazardous waste. The metal is decontaminated and sent to the GTS Duratek Metal Melt facility for recycling into shielding.

Value of Improvement

The volume of waste is reduced by over 90% with the Aerosolv® system. All of the 45 drums of mixed low level waste aerosol cans at TA-54 that had nowhere to go before the Aerosolv® system was installed have now been processed.

Lifecycle Waste Reduction	
Lifecycle Waste Reduction	45 x 55gal MLLW so far
Commencement Date	1999
Project Useful Life (Years)	10 - 15

DOE Monetary Benefits	
Total Project Cost	NA
Lifecycle Savings	$101,250 to date
Return on Investment	NA

Benefits At-A-Glance

- The volume of waste created by aerosol cans from RCAs is reduced by over 90% with the Aerosolv® recycling system.
- Only the plastic caps, nozzles, and protective gloves have to be treated as low level waste.
- Eliminates a "no path forward" mixed low level waste stream.

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	Summary Data
Priority Area:	Waste Minimization Projects
Project Type:	Source Reduction
Total Project Cost:	NA
Lifecycle Savings:	$101,250 to date
Implementing Group:	FWO-SWO
Benefiting Group:	FWO-SWO
Useful Life Years:	10 - 15
Return on Investment:	NA
Lifecycle Waste Reduction:	45 x 55gal drums of MLLW aerosol cans that previously had no disposal option have been processed so far
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Building Upon An Office of Science and Technology Demonstration Success